

**AMENDMENTS TO THE CLAIMS:**

1. (Currently Amended) A method for determining, using a behavior expert, the performance of an infrastructure component based on the operational information relevant to the performance of said infrastructure component, said method comprising:

instantiating, in a computer memory, the behavior expert, the behavior expert having a plurality of memory locations and computer instructions;

obtaining said operational information, from at least one data provider connected to said infrastructure component, said operational information providing values for a set of variables that are used to define the performance of said infrastructure component;

transforming zero or more states according to a set of metric rules, based on the values of said set of variables;

generating zero or more events, indicating the performance of said infrastructure component, according to a set of behavior rules, employed by said behavior expert, based on said states transformed by said transforming;

reporting the events; and

performing adaptive feedback control of the infrastructure component, based on the states, ~~if the behavior expert is coded for adaptive feedback control.~~

2. (Canceled)

3. (Canceled)

4. (Previously Presented) The method according to claim 1, wherein each of said metric rules includes an if-then condition, wherein said if-condition includes at least one of: a

quantitative condition expressed as at least one relation between a variable and its corresponding quantitative value; a qualitative condition expressed as at least one relation between a variable and its corresponding qualitative value; and a combination of quantitative and qualitative condition which includes at least one quantitative condition and at least one qualitative condition.

5. (Previously Presented) The method according to claim 4, wherein said quantitative value includes at least one of a numerical value, a Boolean value, and a string value.

6. (Previously Presented) The method according to claim 4, wherein said qualitative value includes a specificity term represented by a fuzzy set.

7. (Original) The method according to claim 1, further comprising: declaring zero or more elements of said behavior expert as public elements so that said elements can be accessed by different behavior experts; and specifying zero or more different behavior experts as the dependencies of said behavior expert so that the elements declared by said different behavior experts as public elements can be accessed by said behavior expert.

8. (Original) The method according to claim 7, wherein said elements include at least one of a state, an event, and a fuzzy set.

9. (Previously Presented) The method according to claim 1, wherein the step of the behavior expert reporting the events includes forming a uniform event representation for said

events, in accordance with a standard format; and posting said uniform event representation of said events in an event pool.

10. (Previously Presented) The method according to claim 1, wherein said at least one data provider includes at least one of a service, an operating system, an application, an external transaction, a network, and a additional behavior expert.

11. (Canceled)

12. (Currently Amended) A computer readable medium encoded with a program for implementing a behavior expert system for determining the performance of an infrastructure component based on the operational information relevant to the performance of said infrastructure component and for performing adaptive feedback control of the infrastructure component, said system comprising:

an acquisition mechanism for obtaining said operational information, from at least one data provider connected to said infrastructure component, said operational information providing values for a set of variables that are used to define the performance of said infrastructure component;

a state transformation unit for transforming zero or more states according to a set of metric rules based on the values of said set of variables; and

an event generation unit for generating zero or more events, indicating the performance of said infrastructure component, according to a set of behavior rules, based on said states transformed by said state transformation unit;

an output port for exporting zero or more elements of said behavior expert system as public elements so that said elements can be accessed by different behavior expert systems; and

an input port for importing zero or more elements from different dependent behavior expert systems wherein said zero or more elements are declared as public elements by said different behavior expert systems.

13. (Previously Presented) The computer readable medium according to claim 12, wherein said elements include at least one of a state, an event, and a fuzzy set.

14. (Previously Presented) The computer readable medium according to claim 12, further comprising:

an event representation generator for constructing uniform event representations for said events, generated by said event generation unit, in accordance with a standard format; and

a posting mechanism for posting said uniform event representations of said events in an event pool.

15. (Previously Presented) The computer readable medium according to claim 13, wherein said standard format includes a uniform data model.

16. (Previously Presented) The computer readable medium according to claim 12, wherein said event pool includes a blackboard.

17. (Currently Amended) A computer-readable medium encoded with a program for determining the performance of an infrastructure component based on the operational

information relevant to the performance of said infrastructure component, said program comprising:

obtaining said operational information, from at least one data provider connected to said infrastructure component, said operational information providing values for a set of variables that are used to define the performance of said infrastructure component;

transforming zero or more states, controlled by a behavior expert, according to a set of metric rules, employed by said behavior expert, based on the values of said set of variables;

generating zero or more events, indicating the performance of said infrastructure component, according to a set of behavior rules, employed by said behavior expert, based on said states transformed by said transforming; and

implementing an adaptive feedback control of the infrastructure component, based on said states, ~~if the behavior expert is coded for adaptive feedback control.~~

18. (Previously Presented) The computer-readable medium according to claim 17, wherein said at least one data provider includes at least one of a service, an operating system, an application, an external transaction, a network, and a behavior expert.

19. (Canceled)

20. (Canceled)

21. (Previously Presented) The computer-readable medium according to claim 17, wherein each of said metric rules includes an if-then condition, wherein said if-condition includes at least one of: a quantitative condition expressed as at least one relation between a

variable and its corresponding quantitative value; a qualitative condition expressed as at least one relation between a variable and its corresponding qualitative value; and a combination of quantitative and qualitative condition which includes at least one quantitative condition and at least one qualitative condition.

22. (Previously Presented) The computer-readable medium according to claim 21, wherein said quantitative value includes at least one of a numerical value, a Boolean value, and a string value.

23. (Previously Presented) The computer-readable medium according to claim 21, wherein said qualitative value includes a specificity term represented by a fuzzy set.

24. (Previously Presented) The computer-readable medium according to claim 17, said program further comprising: declaring zero or more elements of said behavior expert as public elements so that said elements can be accessed by different behavior experts; and specifying zero or more different behavior experts as the dependencies of said behavior expert so that the elements declared by said different behavior experts as public elements can be accessed by said behavior expert.

25. (Previously Presented) The computer-readable medium according to claim 24, wherein said elements include states, events, and fuzzy sets.

26. (Previously Presented) The computer-readable medium according to claim 17, said program further comprising: forming uniform event representation for said events, generated by

said generating, in accordance with a standard format; and posting said uniform event representation of said events in an event pool.

27. (Previously Presented) The computer-readable medium according to claim 26, wherein said standard format includes a uniform data model.

28. (Previously Presented) The computer-readable medium according to claim 26, wherein said event pool includes a blackboard.

29. (Previously Presented) The method according to claim 1, wherein each of said behavior rules includes an if-then condition, wherein said if-condition includes at least one of: a quantitative condition expressed as at least one relation between a variable and its corresponding quantitative value; a qualitative condition expressed as at least one relation between a variable and its corresponding qualitative value; and a combination of quantitative and qualitative condition which includes at least one quantitative condition and at least one qualitative condition.

30. (Previously Presented) The computer-readable medium according to claim 17, wherein each of said behavior rules includes an if-then condition, wherein said if-condition includes at least one of: a quantitative condition expressed as at least one relation between a variable and its corresponding quantitative value; a qualitative condition expressed as at least one relation between a variable and its corresponding qualitative value; and a combination of quantitative and qualitative condition which includes at least one quantitative condition and at least one qualitative condition.

31. (Currently Amended) A computer readable medium encoded with a program for implementing a system for determining the performance of an infrastructure component based on the operational information relevant to the performance of said infrastructure component and for performing adaptive feedback control of the infrastructure component, said system comprising:

a plurality of behavior experts wherein each behavior expert includes an array of one or more internal states which are assigned values by said behavior expert such that different internal states contain information collected at different times; and

a plurality of bi-directional linkages between said behavior expert systems wherein each behavior expert system has access to the internal states of other behavior expert systems within the plurality, forming a specific topology of linked behavior experts.

32. (Previously Presented) The computer readable medium as claimed in claim 31, wherein each behavior expert transforms its own internal states, according to a set of metric rules, based on the internal states within said behavior expert and one or more internal states of one or more other behavior experts within the plurality of behavior experts.

33. (Previously Presented) The computer readable medium as claimed in claim 32, wherein each behavior expert generates events, according to behavior rules, based on the internal states within said behavior expert and one or more internal states of one or more other behavior experts within the plurality.

34. (Previously Presented) The computer readable medium as claimed in claim 31, wherein each behavior expert operates at an independent execution frequency.



35. (Previously Presented) The computer readable medium as claimed in claim 31, wherein the bi-directional linkages between the behavior experts are changed dynamically.

36. (Previously Presented) The computer readable medium as claimed in claim 31, wherein when the operation of the infrastructure component changes, select behavior experts within the plurality are dynamically instantiated or destroyed.

37. (New) The method of claim 1, wherein performing adaptive feedback control of the infrastructure component includes automatically taking the system control action of re-ranking an application in terms of its priority in allocation of system resources.

38. (New) The method of claim 37, wherein the allocation of system resources includes Central Processing Unit (CPU) cycles.

39. (New) The method of claim 37, wherein the allocation of system resources includes allocation of memory.

40. (New) The method of claim 1, wherein performing adaptive feedback control of the infrastructure component includes automatically taking the system control action of killing a currently running application.

41. (New) The method of claim 1, wherein performing adaptive feedback control of the infrastructure component includes automatically taking the system control action of restricting the percentage of memory available to a currently running application.

42. (New) The computer readable medium of claim 17, wherein performing adaptive feedback control of the infrastructure component includes automatically taking the system control action of re-ranking an application in terms of its priority in allocation of system resources.

43. (New) The method of claim 42, wherein the allocation of system resources includes Central Processing Unit (CPU) cycles.

44. (New) The method of claim 42, wherein the allocation of system resources includes allocation of memory.

45. (New) The computer readable medium of claim 17, wherein performing adaptive feedback control of the infrastructure component includes automatically taking the system control action of killing a currently running application.

46. (New) The computer readable medium of claim 17, wherein performing adaptive feedback control of the infrastructure component includes automatically taking the system control action of restricting the percentage of memory available to an application.